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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/788,253	02/16/2001	Shigefumi Odaohhara	JA9 1999 0738	4919

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EXAMINER

DU, THUAN N

ART UNIT	PAPER NUMBER
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2116

DATE MAILED: 01/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/788,253

Applicant(s)

ODAOHHARA ET AL.

Examiner

Thuan N. Du

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 February 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-7 is/are rejected.
- 7) ☒ Claim(s) 3 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 February 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-7 are presented for examination.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

3. Figure 5 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 5-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
6. Claims 5 and 7 contain the phrase "IEEE 1394 standard." Standards change over time, hence, it is inappropriate to have the scope of a claim change with time. Since organizations

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implementing standards meet regularly and have the authority to modify standards, any connection a claim may have to these standards may vary scope over time. The other aspect arising from this is enablement. If the standard changes, the disclosure may no longer support the limitation.

7. Claim 6 recites the limitation "the protection means" in line 12. There is insufficient antecedent basis for this limitation in the claim. Applicant is suggested to change "the protection means" in line 12 to -- the system protection circuitry --.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1, 2 and 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admission of prior art [AAPA] in view of Schwan et al. [Schwan] (U.S. Patent No. 6,125,448).

10. **Regarding claim 1**, AAPA teaches a power supply protection apparatus comprising:
a diode for limiting a flow of electric power to one direction [application's specification, p. 3, line 11], said diode being provided in a power line [application's specification, p. 3, lines 11-12] that enables power supply within a predetermined range of said electric power [application's specification, p. 2, lines 22-24]; and

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a switch unit for disconnecting/connecting said power line [application's specification, p. 3, lines 2-5].

AAPA does not explicitly teach the apparatus including a voltage sensor for detecting a voltage value of the power line. AAPA also does not explicitly teach the disconnecting/connecting act is based on the voltage value detected.

Schwan teaches a protection circuitry comprising a voltage sensor for detecting a voltage value of power line [col. 12, lines 51-58], wherein a switch is opened or closed for disconnecting or connecting the power line based on the comparison between the detected voltage value and a predetermined voltage value (threshold) [col. 12, line 58 to col. 13, line 11].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of AAPA and Schwan because they both directed to protection apparatus. Schwan's teaching of a voltage detection circuit would increase the integrity of AAPA's system by allowing the voltage across the power line is detected and determined to be sufficient or not. Therefore, the power line can be disconnected or connected base on the detected voltage across the power line to protect other circuits in the system.

11. **Regarding claim 2**, AAPA teaches that the switch unit includes a transistor element [application's specification, p. 3, lines 2-5].

12. **Regarding claim 4**, AAPA teaches that the predetermined voltage value [application's specification, p. 2, lines 22-24] is less than a dielectric strength voltage value of a component operated with electric power supplied from said power line [application's specification, p. 3, lines 18-21], said component being provided upstream of said one direction [Fig. 5; application's specification, p. 3, lines 22-23].

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13. **Regarding claim 5**, AAPA teaches that the power line is connected to a terminal for connecting to a power line of a device conforming to the IEEE 1394 [Fig. 5; application's specification, p. 2, lines 26-27].

14. **Regarding claim 6**, AAPA teaches a computer system (notebook-type PC) comprising:
a battery for supplying electrical power over a power line [Fig. 5; application's specification, p. 2, lines 25-26];

a data processing circuitry connected to said power line and supplied with electrical power by said battery [Fig. 5; inner circuit 110], said data processing circuitry having associated therewith a withstand voltage value above which at least a portion of said data processing circuitry is not designed to operated (the inner circuit is operable at 9.0V-12.6V and not operable if the voltage value is greater than 12.6V) [application's specification, p. 3, lines 20-21];

a terminal connected to said power line, for connecting said computer system to at least one external device (device 152A, 152B) over a bus (bus 150) [Fig. 5];

a system protection circuitry (protection circuit 140) connected to said power line, disposed between said data processing circuitry and said terminal [Fig. 5], for protecting the data processing circuitry from voltages greater than said withstand voltage value caused on said power line by said at least one external device [application's specification, p. 3, lines 14-23]; the protection means comprising:

a diode provided in said power line [application's specification, p. 3, lines 11-12]; and
switching means for disconnecting/connecting said power line [application's specification, p. 3, lines 2-5].

AAPA does not explicitly teach the apparatus including a voltage sensor for detecting a voltage value of the power line at said terminal. AAPA also does not explicitly teach the disconnecting/connecting act is based on the voltage value detected.

Schwan teaches a protection circuitry comprising a voltage sensor for detecting a voltage value of power line [col. 12, lines 51-58], wherein a switch is opened or closed for disconnecting or connecting the power line based on the comparison between the detected voltage value and a predetermined voltage value (threshold) [col. 12, line 58 to col. 13, line 11].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of AAPA and Schwan because they both directed to protection apparatus. Schwan's teaching of a voltage detection circuit would increase the integrity of AAPA's system by allowing the voltage across the power line is detected and determined to be sufficient or not. Therefore, the power line can be disconnected or connected base on the detected voltage across the power line to protect other circuits in the system.

15. **Regarding claim 7**, AAPA teaches that the bus (bus 150) conforms to the IEEE 1394 [Fig. 5; application's specification, p. 2, lines 26-27].

Allowable Subject Matter

16. Claim 3 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Conclusion

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thuan N. Du whose telephone number is (703) 308-6292 or via e-mail, **thuan.du@uspto.gov**. The examiner can normally be reached on Monday-Friday: 9:00 AM - 5:30 PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas C. Lee can be reached on (703) 305-9717.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Any response to this action should be mailed to:

U.S. Patent and Trademark Office
P.O. Box 2327
Arlington, VA 22202.

The fax number for the organization is (703) 872-9306.

Hand-delivered responses should be brought to:

Crystal Park II
2121 Crystal Drive
Arlington, VA 22202
Fourth Floor (Receptionist).



Thuan N. Du
December 29, 2003